January 27, 2009 Meeting
Peninsula Restoration Group and USEPA
Standard Chlorine Chemical Co. Inc. Site
Kearny, New Jersey

Presentation Overview

- Introduction
- Presentation Objectives
- Historical SCCC Site Activities & Investigations
- Planned Interim Response Action
- Pre-Design Investigation Scope
- Pre-Design Investigation Results
- Revisions to Planned Interim Response Action
- Upcoming Activities

Introduction
Peninsula Restoration Group

Formed in 3rd Quarter 2003 to Jointly Address the Remediation of the SCCC Site.

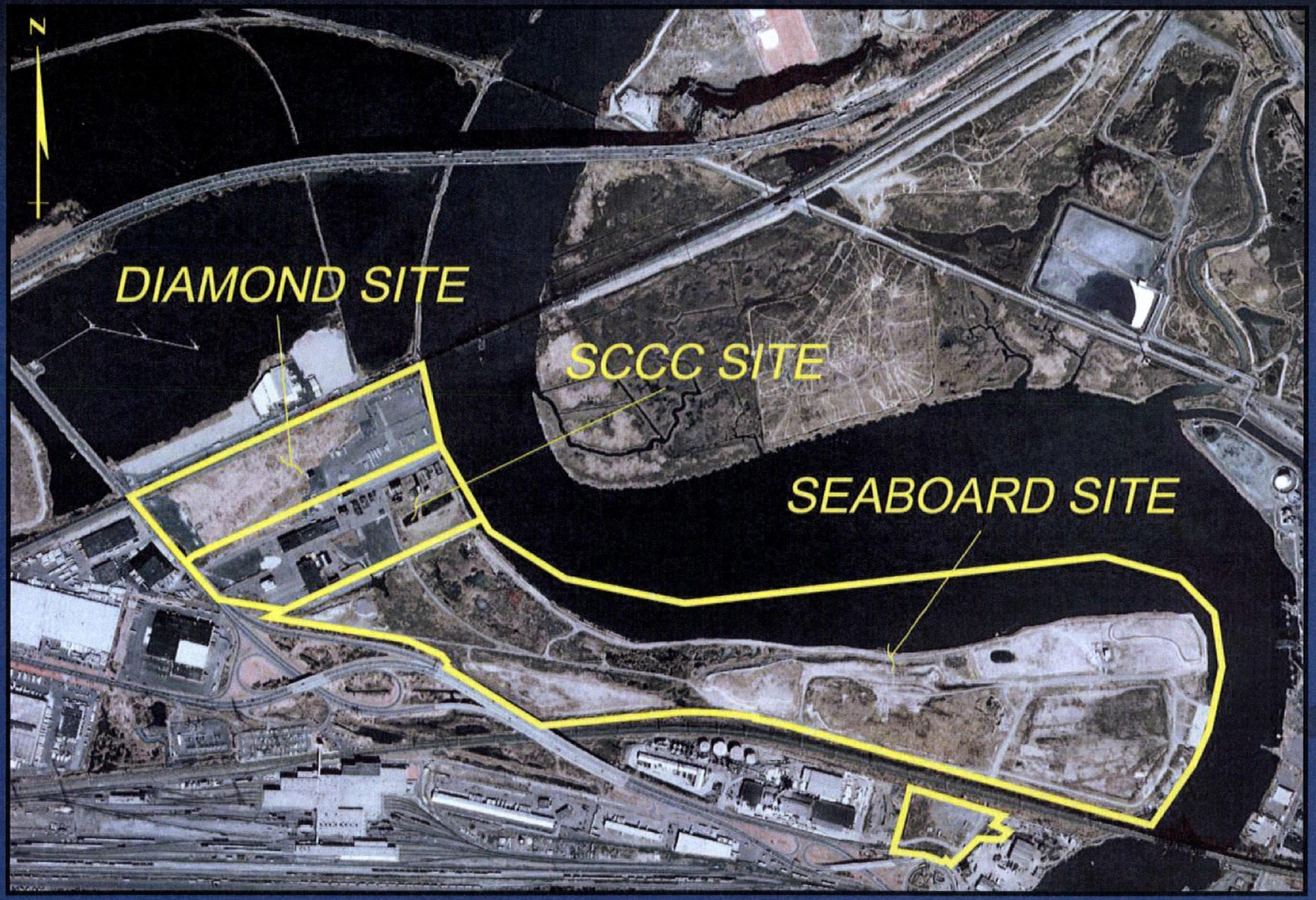
- Standard Chlorine Chemical Co., Inc.
- Beazer East, Inc.
- Tierra Solutions, Inc.

Presentation Objectives

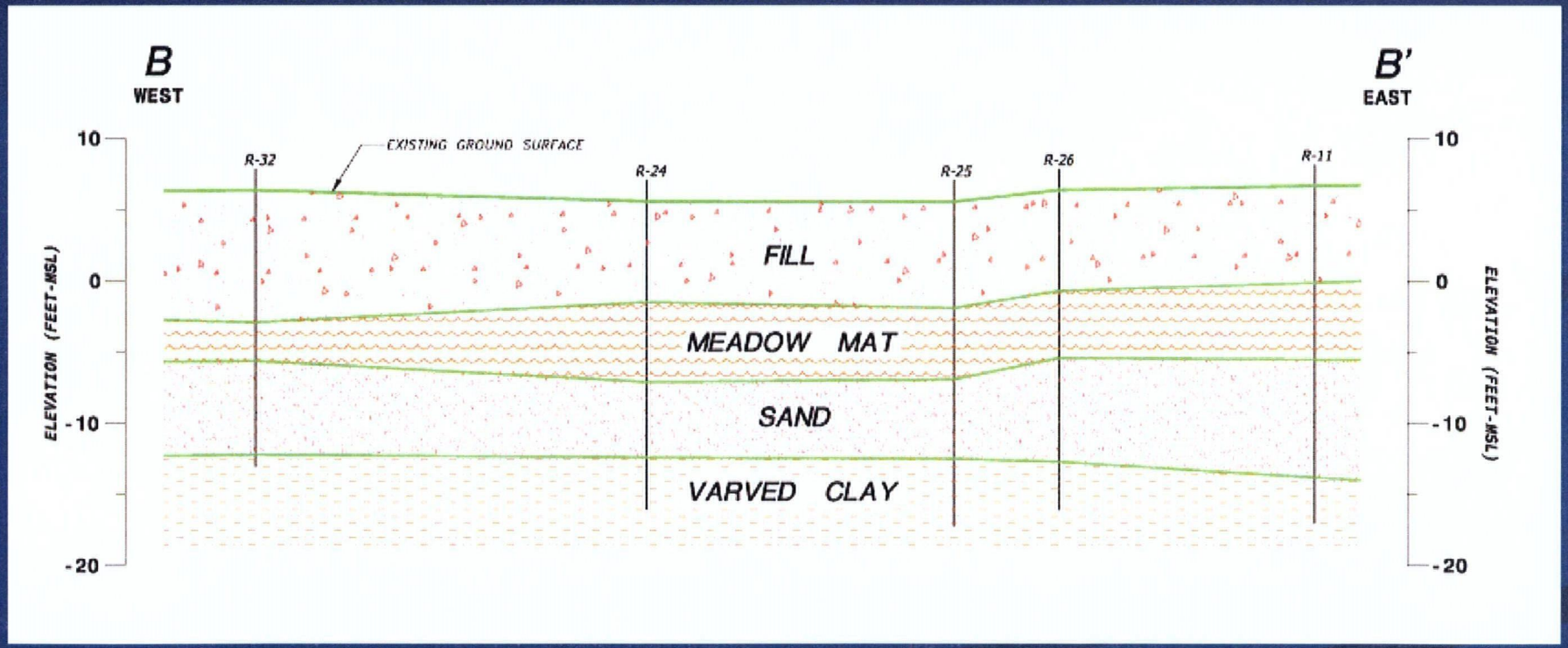
- Provide Overview of Site History, Conditions, and Historical Work
- Summarize Scope of the Interim Response Action (Oct '08 IRAW)
- Summarize Interim Response Action Pre-Design Data Collection
- Summarize Results of the Pre-Design Investigation
- Identify Appropriate Modifications to the Planned IRA
- Discuss Plans and Schedules for Moving Forward

Site Location Map

Aerial View - The Kearny Peninsula



Generalized Geologic Conditions



History of Owners/Operators – Lot 50 The Edison Plant

- 1929-1954: Thomas E. Edison, Inc. and related companies own and operate lead-acid storage battery manufacturing facility (the Edison Plant) on entirety of Lot 50.
  - Operations include: all aspects of battery and casing manufacture and testing; reclamation of spent lead oxide and scrap metal; storage of raw materials, spent lead oxide, and coal for onsite power plant.
  - Raw materials and finished goods transported to/from the Edison Plant by rail, truck and possibly via barge to Edison dock on Lot 52R.
  - SCCC Site contaminants associated with Edison Plant operations include: lead and lead impurities, sulfuric acid impurities, iron, antimony, aluminum, copper, magnesium, manganese and chromium.

History of Owners/Operators– Lot 50 The Edison Plant, cont'd

- 1954: Crown Rubber Products, Inc. (Crown Rubber) acquires Lot 50.
- 1954-1959: Crown Rubber operates a molded rubber product manufacturing operation in Building No. 2 of the Edison Plant buildings.
  - Crown Rubber has a tenant (believed to be The Tanatex Corporation), which conducts operations in other portions of the facility, including Building No. 3.
  - No records reflecting the continuing existence of Crown Rubber after 1959 have been found.
- 1959: Crown Rubber sells Lot 50 to Keaton Rubber Company (Keaton). Note: Keaton went out of business in 1975.
- 1959-1962: Keaton operates a molded rubber products manufacturing facility in Bldg No. 2 and leases Bldg No. 3, some of Bldg No. 1, as well as equipment, to Tanatex Chemical Corporation (Tanatex).

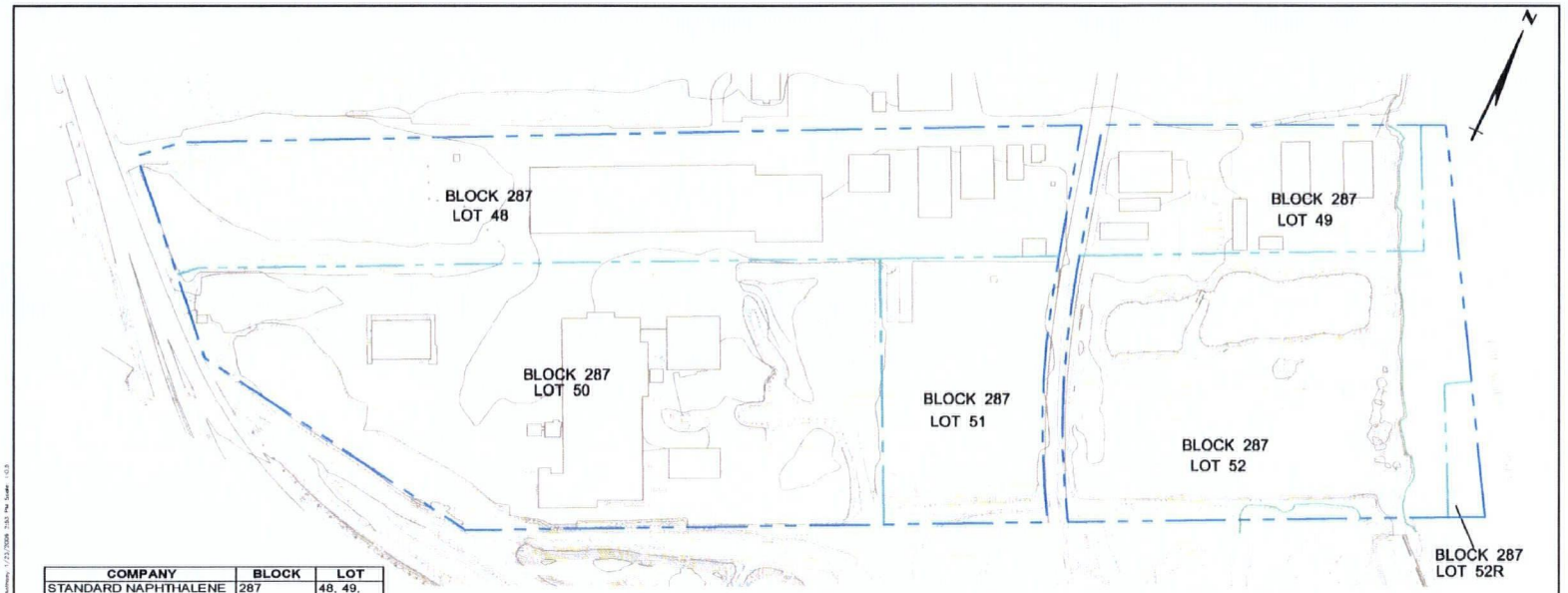
History of Owners/Operators– Lot 50 The Edison Plant, cont'd

- 1959-1963: Tanatex operates a chemical dye-carrier manufacturing facility in Building 3, and maintains a research laboratory in Bldg. 1.
  - Principal raw materials include: technical trichlorobenzenes and methylnaphthalenes. It is believed that dichlorobenzenes and biphenyl, as well as various surfactants and solvents are also used.
  - Tanatex uses the onsite rail-siding in its operations, as well as onsite chemical storage tanks. Production wastes discharge via floor drains to several discharge outlets in the ground near Bldgs. 3 and 4.
  - The following SCCC Site contaminants are believed to be attributable, in part to Tanatex's operations: 1,2,4-Trichlorobenzene, dichlorobenzenes, monochlorobenzene, 2,3,7,8 TCDD, and naphthalene derivatives.

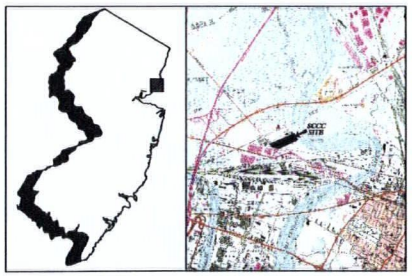
History of Owners/Operators– Lot 50 The Edison Plant, cont'd

- 1962: Keaton sells Lot 50 to SCCC.
- 1962-1993: Manufacturing operations are conducted on portions of Lot 50 by SCCC and its subsidiary, Cloroben Chemical Corporation (Cloroben) as follows:
  - 1962-1981: SCCC manufactures and packages dichlorobenzene products (in Bldg No. 2). Operations are discontinued in 1981.
  - 1962-1993: Cloroben formulates and packages drain-cleaner products in Bldgs 3 and 4. The raw materials include: orthodichlorobenzene (not used after 1987), sulfuric acid, hydrochloric acid, methyl benzoate, terpene solvents and enzymes.
  - 1993: All manufacturing operations on Lot 50 are discontinued.

Property Boundaries and Parcels



COMPANY	BLOCK	LOT
STANDARD NAPHTHALENE PRODUCTS CO., INC.	287	48, 49, 51, 52, 52R
STANDARD CHLORINE CHEMICAL CO., INC.	287	50



SITE LOCATION

LEGEND

- PROPERTY BOUNDARY
- LOT BOUNDARY
- EXISTING GROUND SURFACE ELEVATION CONTOURS
- EXISTING STREAM, POND AND RIVER BANK
- EXISTING VEGETATION
- EXISTING BUILDING/STRUCTURE
- FORMER BUILDING/STRUCTURE
- EXISTING ACCESS ROAD
- EXISTING FENCE
- FORMER RAILROAD
- EXISTING STRUCTURES
- EXISTING UTILITY POLES

0 300 600 FEET

EPA PRESENTATION

DRWN: WH4 DATE:01/23/08
CHKD: RJH DATE:01/23/08
APPD: JBZ DATE:01/23/08
SCALE: AS SHOWN

KEY ENVIRONMENTAL INCORPORATED

STANDARD CHLORINE CHEMICAL COMPANY SITE
KEARNY, NEW JERSEY

PROPERTY BOUNDARY AND PARCELS

PROJECT NO: 08-004

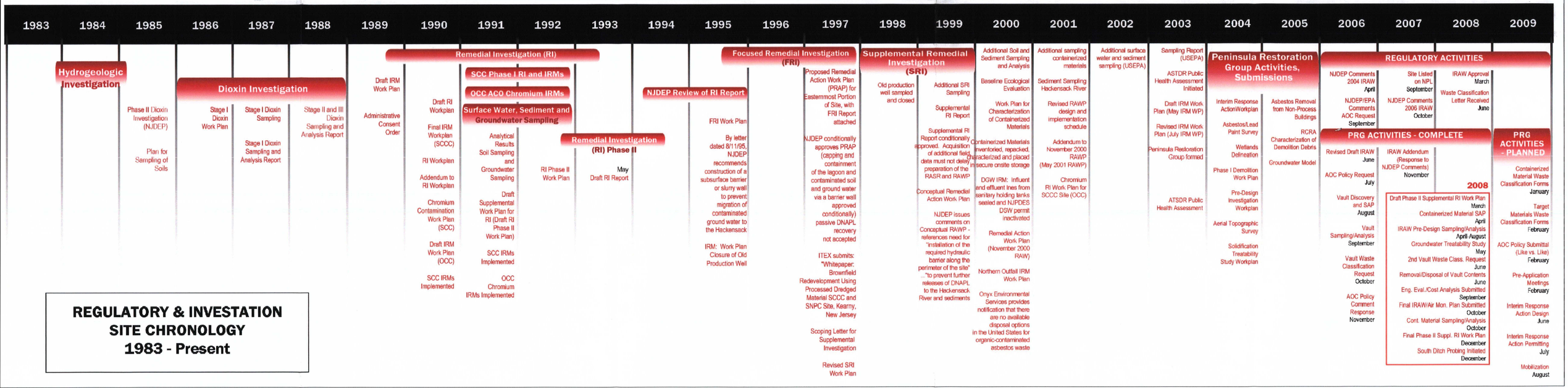
FIGURE 1

REV | DATE | DESCRIPTION | APPD

REFERENCE:
1. VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
2. EXISTING GROUND SURFACE ELEVATION CONTOURS PER AIR SURVEY, EXLER, VERONA, APRIL 14, 2001. HORIZONTAL REFERENCE NEW JERSEY STATE PLANE COORDINATES (NAD 1927).
3. VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).
4. PROPERTY BOUNDARY PER PAULUS, SOKOLOWSKI, BARTON, CONSULTING ENGINEERS, AUGUST 1995.

ISSUE DATE:

KEY ENVIRONMENTAL, INC.
303 THIRD AVENUE
SWEDESBORO, NJ 08085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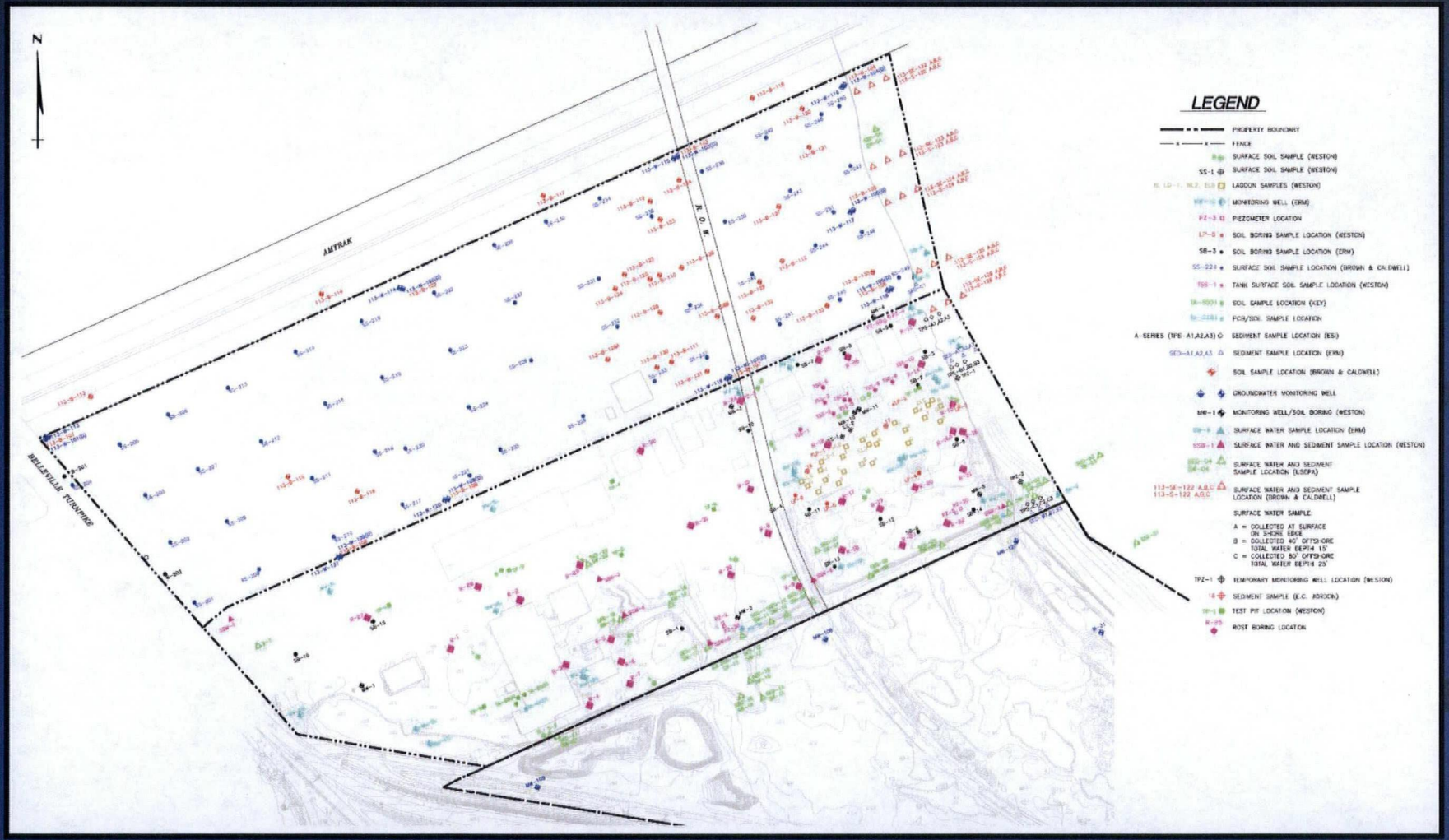
Hydrogeologic Investigation
Phase II Dioxin Investigation (NJDEP)
Plan for Sampling of Soils
Dioxin Investigation
Stage I Dioxin Work Plan
Stage I Dioxin Sampling
Stage I Dioxin Sampling and Analysis Report
Stage II and III Dioxin Sampling and Analysis Report
Draft IRM Work Plan
Administrative Consent Order
Remedial Investigation (RI)
Draft RI Workplan
Final IRM Workplan (SCCC)
RI Workplan
Addendum to RI Workplan
Chromium Contamination Work Plan (SCC)
Draft IRM Work Plan (OCC)
SCC IRMs Implemented
SCC Phase I RI and IRMs
OCC ACO Chromium IRMs
Surface Water, Sediment and Groundwater Sampling
Analytical Results Soil Sampling and Groundwater Sampling
Draft Supplemental Work Plan for RI (Draft RI Phase II Work Plan)
SCC IRMs Implemented
OCC Chromium IRMs Implemented
RI Phase II Work Plan
Remedial Investigation (RI) Phase II
May Draft RI Report
NJDEP Review of RI Report
FRI Work Plan
By letter dated 8/11/95, NJDEP recommends construction of a subsurface barrier or slurry wall to prevent migration of contaminated ground water to the Hackensack
IRM: Work Plan Closure of Old Production Well
Focused Remedial Investigation (FRI)
Proposed Remedial Action Work Plan (PRAP) for Easternmost Portion of Site, with FRI Report attached
NJDEP conditionally approves PRAP (capping and containment of the lagoon and contaminated soil and ground water via a barrier wall approved conditionally) passive DNAPL recovery not accepted
ITEX submits: "Whitepaper: Brownfield Redevelopment Using Processed Dredged Material SCCC and SNPC Site, Kearny, New Jersey
Scoping Letter for Supplemental Investigation
Revised SRI Work Plan
Supplemental Remedial Investigation (SRI)
Old production well sampled and closed
Additional SRI Sampling
Supplemental RI Report
Supplemental RI Report conditionally approved. Acquisition of additional field data must not delay preparation of the RASR and RAWP
Conceptual Remedial Action Work Plan
NJDEP issues comments on Conceptual RAWP - references need for "installation of the required hydraulic barrier along the perimeter of the site" ..."to prevent further releases of DNAPL to the Hackensack River and sediments
Additional Soil and Sediment Sampling and Analysis
Baseline Ecological Evaluation
Work Plan for Characterization of Containerized Materials
Containerized Materials inventoried, repacked, characterized and placed in secure onsite storage
DGW IRM: Influent and effluent lines from sanitary holding tanks sealed and NJPDES DSW permit inactivated
Remedial Action Work Plan (November 2000 RAW)
Northern Outfall IRM Work Plan
Onyx Environmental Services provides notification that there are no available disposal options in the United States for organic-contaminated asbestos waste
Additional sampling containerized materials
Sediment Sampling Hackensack River
Revised RAWP design and implementation schedule
Addendum to November 2000 RAWP (May 2001 RAWP)
Chromium RI Work Plan for SCCC Site (OCC)
Additional surface water and sediment sampling (USEPA)
Sampling Report (USEPA)
ASTDR Public Health Assessment Initiated
Draft IRM Work Plan (May IRM WP)
Revised IRM Work Plan (July IRM WP)
Peninsula Restoration Group formed
ATSDR Public Health Assessment
Peninsula Restoration Group Activities, Submissions
Interim Response ActionWorkplan
Asbestos/Lead Paint Survey
Wetlands Delineation
Phase I Demolition Work Plan
Pre-Design Investigation Workplan
Aerial Topographic Survey
Solidification Treatability Study Workplan
Asbestos Removal from Non-Process Buildings
RCRA Characterization of Demolition Debris
Groundwater Model
REGULATORY ACTIVITIES
NJDEP Comments 2004 IRAW April
NJDEP/EPA Comments AOC Request September
Site Listed on NPL September
NJDEP Comments 2006 IRAW October
IRAW Approval March
Waste Classification Letter Received June
PRG ACTIVITIES - COMPLETE
Revised Draft IRAW June
AOC Policy Request July
Vault Discovery and SAP August
Vault Sampling/Analysis September
Vault Waste Classification Request October
AOC Policy Comment Response November
IRAW Addendum (Response to NJDEP Comments) November
2008
Draft Phase II Supplemental RI Work Plan March
Containerized Material SAP April
IRAW Pre-Design Sampling/Analysis April-August
Groundwater Treatability Study May
2nd Vault Waste Class. Request June
Removal/Disposal of Vault Contents June
Eng. Eval./Cost Analysis Submitted September
Final IRAW/Air Mon. Plan Submitted October
Cont. Material Sampling/Analysis October
Final Phase II Suppl. RI Work Plan December
South Ditch Probing Initiated December
PRG ACTIVITIES - PLANNED
Containerized Material Waste Classification Forms January
Target Materials Waste Classification Forms February
AOC Policy Submittal (Like vs. Like) February
Pre-Application Meetings February
Interim Response Action Design June
Interim Response Action Permitting July
Mobilization August
REGULATORY & INVESTATION SITE CHRONOLOGY
1983 - Present

Historical Sample Locations
SCCC and Diamond Sites



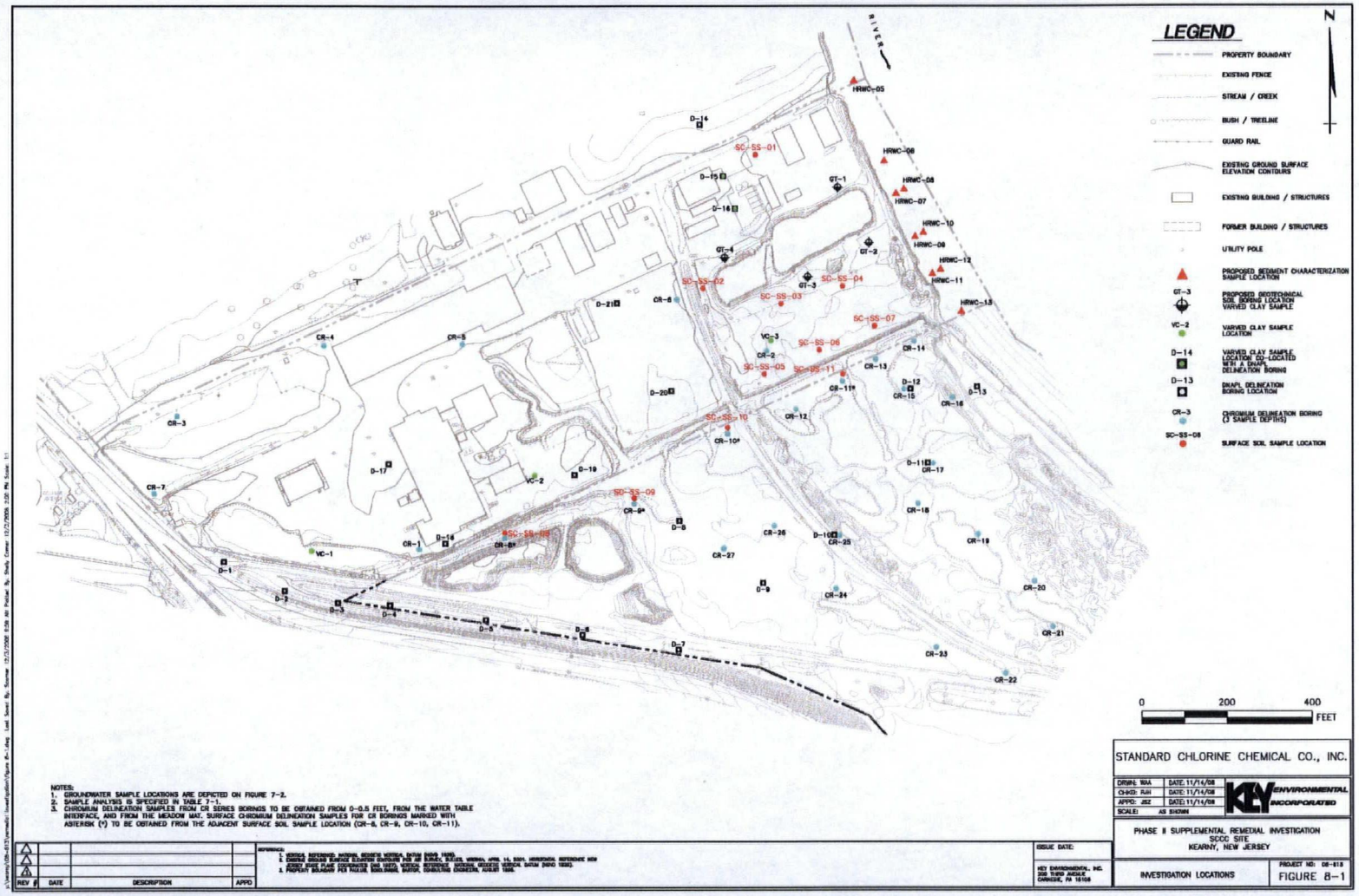
Historical SCCC Site Investigations

- 133 Soil Samples
- 63 Lagoon Sludge Samples
- 34 Monitoring Wells Installed
- 46 Groundwater Samples
- 31 Laser Induced Fluorescence Soundings
- 27 Drainage Ditch Sediment Samples
- 23 Drainage Ditch Surface Water Samples
- 38 Near-Shore River Sediment Samples
- 8 River Surface Water Samples
- 43 Other Samples
- Tidal Studies
- Geophysics (GPR and Seismic Refraction)

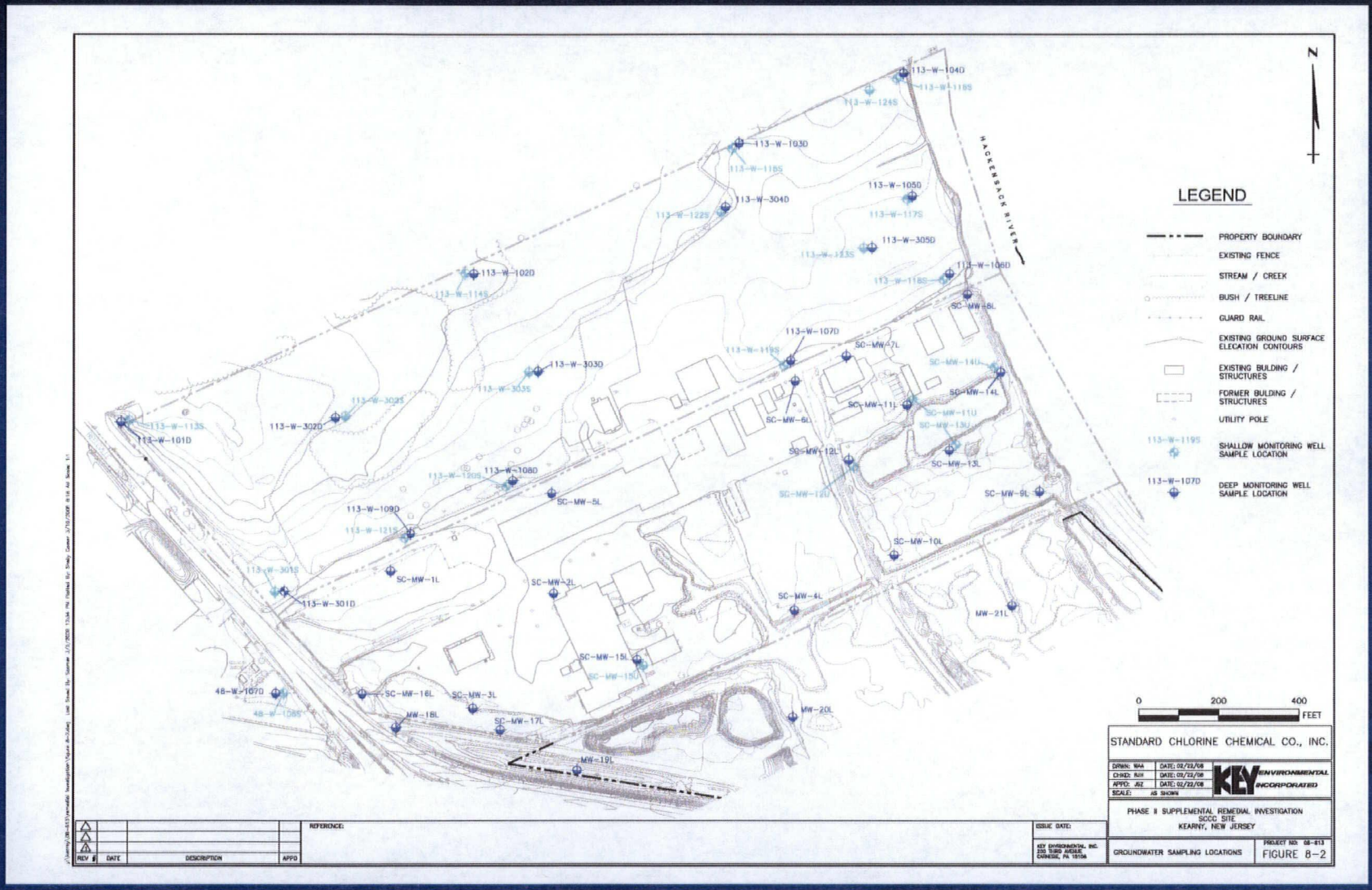
Proposed Supplemental RI Objectives

- To define the extent of DNAPL within the fill and deeper sand units onsite and on adjacent properties;
- To complete groundwater quality characterization Site-wide and in off-site down-gradient areas; and,
- To complete surface and subsurface soil delineation onsite and on adjacent properties.

RI Soil/Sediment Sample Locations



RI Groundwater Sample Locations



Proposed Supplemental RI Scope

- 34 Surface Soil Samples
- 63 Subsurface Soil Samples
- 57 Groundwater Samples
- 18 Near-Shore River Sediment Samples

IRAW Overview

- Media of Interest
- IRA Objectives
- IRA Approach
- IRA Components
- Pre-Design Investigation Scope
- Pre-Design Investigation Components
- IRA Modifications

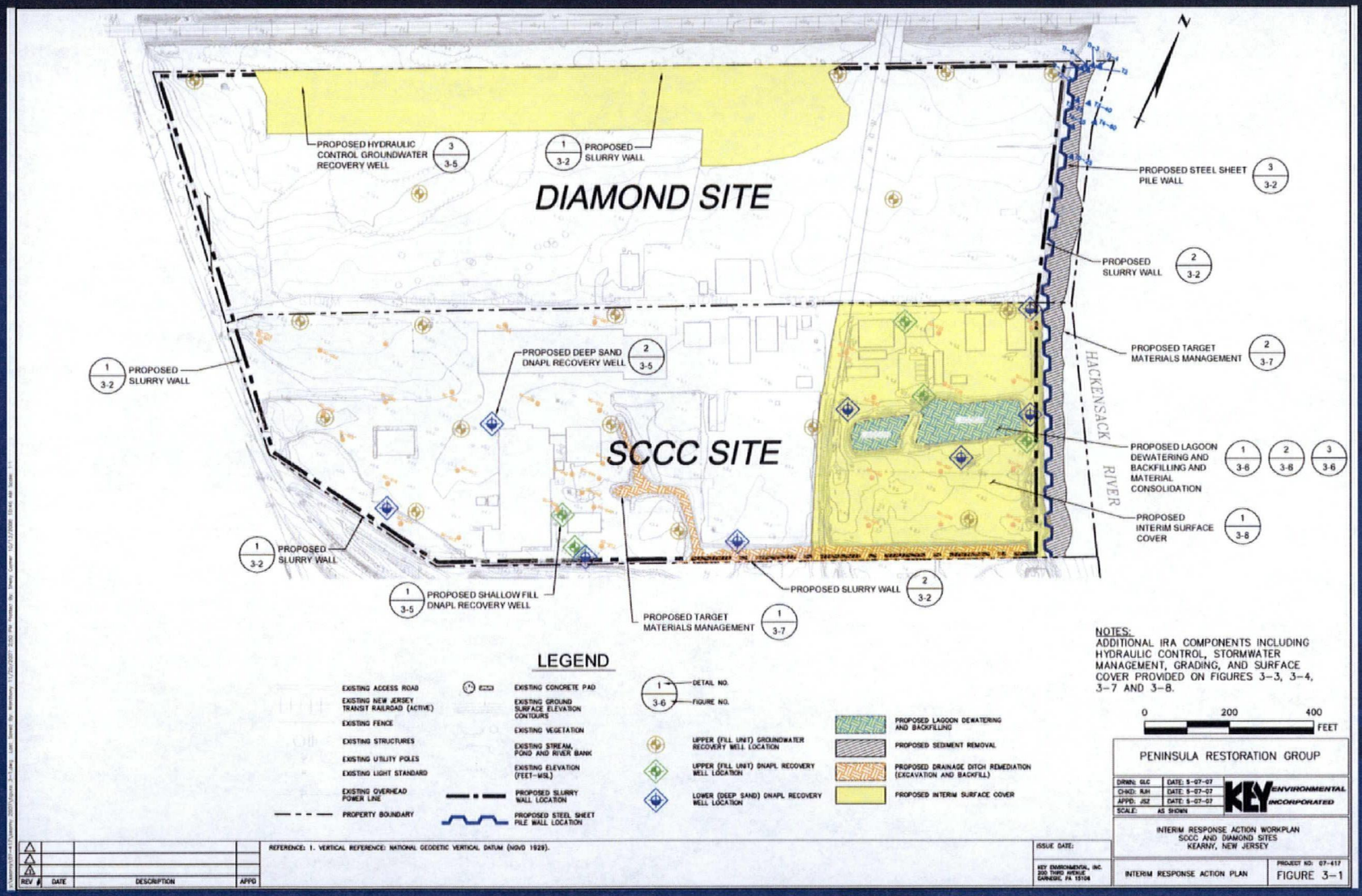
Media of Interest

- Lagoon Solids
- Surface and Subsurface Soil
- Drainage Ditch Soft Soil
- Near-Shore Hackensack River Sediment
- Groundwater - Shallow Fill and Sand
- DNAPL - Shallow Fill and Sand
- Containerized Materials
- Former Transformer Pad
- Septic Tank Solids and Liquids

Interim Response Action Objectives

- Eliminate the potential for subsurface discharge of constituents to the Hackensack River
- Eliminate the potential for overland runoff of constituents to the Hackensack River
- Remove dense non-aqueous phase liquid (DNAPL) to the extent practicable as a source control measure
- Enhance existing measures to eliminate the potential for direct contact with constituents
- Enhance near-shore Hackensack River environment

2008 IRA Approach



Interim Response Action Components

- Steel Sheet Pile Wall Along River Frontage
- Fully Enclosing Cement Bentonite Slurry Wall
- Hydraulic Control Pumping Wells
- DNAPL Recovery System
- Groundwater/DNAPL Treatment System
- Removal/Consolidation of South Ditch Soft Soils
- Removal/Consolidation of Near-Shore Sediments
- Surface Covers Over Consolidation Areas
- Storm-Water Management System
- Near-Shore Wetland Restoration

Pre-Design Investigation Scope

- Barrier Wall Alignment Borings
- Geotechnical Borings and Testing
- Surface Soil Sampling/Analysis
- Subsurface Soil Sampling/Analysis
- Lagoon Solids and Liquids Sampling/Analysis
- Groundwater/DNAPL Sampling/Analysis
- Groundwater Treatability Study
- South Ditch Soft Soil Sampling/Analysis
- Near-shore Hackensack R. Sediment Sampling/Analysis

- Chemical Characterization (Nature & Extent)
- Waste Classification (RCRA Considerations)

Pre-Design Investigation Results

- Lagoon Solids are a Solidified Mass
- Stormwater Ponded in Lagoon Essentially Un-impacted
- Chromium (VI) Confined to the Fill Materials
- Localized Near-Shore River Impacts (Removal is Viable)
- TCDD TEQs in River Sediments < 1 ppb
- Expected Discharge Limits Attainable for Treated GW
- DNAPL Extends onto the Seaboard Site
- Refinement of Consolidation Approach Appropriate
- No Geotechnical Surprises (Barrier Walls are Viable)

Interim Response Action Modifications

- Extend Cement-Bentonite Slurry Wall onto the Seaboard Site
- Expand Hydraulic Control System onto the Seaboard Site
- Extend DNAPL Recovery Operations onto the Seaboard Site
- Refine Target Material Consolidation Approach in view of "Like vs. Like" Considerations

Revised Wall Alignment and Hydraulic Control

Summary and Proposed Path Forward

- The planned IRA is appropriate/implementable with minor modifications
- Waste classification and like versus like (AOC) submittals are forthcoming
- Pre-Application meetings are a near-term critical path issue
- Construction can commence in 2009 assuming no regulatory or access delays